

IN THE CLAIMS

This listing of claims substitute any and all previously listed claims.

1. (previously amended) A bioactive polypeptide, MF3, with a primary structure depicted in SEQ ID NO:1, an active fragment of MF3, or any functional derivative of MF3,
said polypeptide, active fragment or functional derivative being capable of effecting a resistance of a plant against microbial diseases and/or against attack of plant parasites.
2. (currently amended) An isolated DNA sequence according to ~~depicted in~~ SEQ ID NO:2, or fragment thereof, encoding ~~a functionally the bioactive polypeptide~~ MF3, or its active fragment or functional derivative according to claim 1, wherein said DNA fragment may contain degenerate codons.
3. (currently amended) A method of acquiring resistance of a plant against microbes and/or plant parasites by introducing the bioactive polypeptide MF3 of claim 1, or an active fragment, or a functional derivative thereof into plants mechanically or by means of carrier molecules.
4. (original) The method according to claim 3, wherein the carrier is chitosan.
5. (original) A vector comprising the DNA according to claim 2.
6. (Previously amended) A transgenic plant or plant cell culture comprising a vector according to claim 5.
7. (original) A host cell stably transformed or transfected with a vector of claim 5.

8. (previously amended) A plant protectant composition comprising isolated bioactive polypeptide MF3, an isolated active fragment of MF3 or any isolated functional derivative of MF3 of claim 1.

9. (original) The active fragment of MF3 according to claim 1, wherein the amino acid sequence consists of SEQ ID:3 or SEQ ID:4.

10. (currently amended) A method of isolating and purifying the bioactive polypeptide of claim 1 from bacterial cells expressing said bioactive polypeptide, the method comprising the steps:

- a) cultivating a microbial producer strain and extracting cells with a buffer solution at an elevated temperature;
- b) precipitating a crude MF3 polypeptide at low temperature with a precipitant;
- c) fractionating re-dissolved precipitate by an anion exchange chromatography column and collecting fractions with anti-microbial or anti-insect activities;
- d) performing polyacrylamide gel electrophoresis of the polypeptide fractions with anti-microbial, anti-nematode, or anti-insect activities;
- e) recovering the protein eluted from the gel of step d.

11. (Previously amended) A method to protect plants or plant cell cultures from microbial diseases or pests by applying the protectant composition of claim 8.

12. (previously amended) The method according to claim 11, wherein the plants or plant cell cultures are protected from diseases caused by a microbe selected from the group consisting of *Phytophthora infestans*, *Erwinia carotovora*, *Pyricularia oryzae*, *Fusarium cumorum*, *Septoria nodorum*, Tobacco Mosaic Virus, Potato Virus X, and Potato Virus Y.

13. (previously amended) The method according to claim 11, wherein the plants are protected from potato cyst nematodes.

14. (previously amended) The transgenic plant or plant cell culture of claim 6, wherein the transgenic plant or cell culture expresses increased resistance against a disease caused by a microbe selected from the group consisting of *Phytophthora infestans*, *Erwinia carotovora*, *Pyricularia oryzae*, *Fusarium cumorum*, *Septoria nodorum*, Tobacco Mosaic Virus, Potato Virus X, and Potato Virus Y.

15. (previously amended) The transgenic plant or plant cell culture of claim 6, wherein the transgenic plant or cell culture expresses increased resistance against potato cyst nematodes.

Election of claim group with traverse

The Examiner states that the application contains three independent inventions and requires election of one of the following groups:

- I. Claims 1, 3-4, 8-9, 11-13, drawn to a bioactive MF3 polypeptide or a functional derivative thereof, a method of using said polypeptide, and a composition comprising said polypeptide.
- II. Claims 2,5-7, and 14-15, drawn to an isolated DNA, a vector and cell/plant comprising said DNA
- III. Group III, claim 10, drawn to a method of isolating and purifying an MF3 polypeptide form bacterial cells.

The applicant provisionally elects Group II with traverse. Please, find the arguments against the current restriction requirement beginning on page 7.